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## CLAIMS:

1. A network device adapted to receive an incoming call, the network device comprising:

a call forwarding function adapted to:

5 if the incoming call was intended for an other network device, look-up a call forwarding destination on behalf of the other network device, and respond to the incoming call with the call forwarding destination.

10 2. A network device according to claim 1 wherein the call forwarding function is adapted to provide call forwarding information to another network device defined as a backup for the network device.

15 3. A network device according to claim 1 wherein the network device is defined as a backup network device for the other network device.

4. A network device according to claim 1 wherein the look-up is performed locally at the network device.

5. A network device according to claim 1 comprising a call processing module adapted to process the incoming call, 20 the processing module comprising the call forwarding function.

6. A network device according to claim 5 comprising:

a user interface adapted to receive a user input enabling call forwarding, wherein responsive to the user 25 input the call processing module is further adapted to deliver call forwarding functionality by, while call forwarding is enabled, upon receipt of the incoming call:

if the incoming call was intended for the network device, looking-up an other call forwarding destination and

responding to the incoming call with the other call forwarding destination.

7. A network device according to claim 5 wherein upon receipt of the incoming call, the call processing module is 5 adapted to respond to the incoming call with the call forwarding destination only if the incoming call is not answered before a timeout.

8. A network device according to claim 5 comprising an audio interface adapted to generate a ringing signal upon 10 receipt of the incoming call, the call processing module being adapted to respond to the incoming call with the call forwarding destination only if the incoming call is not answered before a number of rings.

9. A network device according to claim 1 wherein the 15 call forwarding destination is provided in the form of a message sent in response to the incoming call referring a network device having the call forwarding destination as a forwarder of the call.

10. A network device according to according to claim 5 20 wherein the call processing module is further adapted to:

initiate an other call to an other network device; and

responsive to receiving a first message in response to initiating the other call, the first message 25 containing an other call forwarding destination, send a second message to a network having the other call forwarding destination to set up a connection.

11. A network device according to according to claim 10 wherein the call processing module is further adapted to:

if there is no response to the first message, look-up a second other call forwarding destination and initiate a call to a network device having the second other call forwarding destination.

5 12. A network device according to claim 11 wherein the network device having the second other call forwarding destination is defined as a backup network device for the network device having the other call forwarding destination.

10 13. A network device according to claim 5 wherein the call processing module is further adapted to participate in a call forwarding of a first other call from a first other network device to a second other network device, the second other network device initiating a second other call to the network device, by:

15 establishing a media path with the first other network device.

14. A network device according to claim 5 wherein the call processing module comprises an unconditional call forwarding option for enabling/disabling unconditional call 20 forwarding, the call processing module being further adapted to:

a) if the call was intended for the network device:

if unconditional call forwarding is enabled, 25 perform call forwarding on the incoming call.

15. A network device according to claim 1 wherein the network device is one of a terminal set, a packet based telephone, a video phone, a PC (Personal Computer), a PDA (Personal Digital Assistant), a soft phone, a wireless 30 device, and a wireless telephone.

16. A network device according to claim 1 wherein the network device is a VoIP (Voice over Internet Protocol) telephone.

17. A network device adapted to receive an incoming 5 call, the network device comprising:

a call forwarding function adapted to:

if the incoming call was intended for an other network device, look-up a call forwarding destination on behalf of the other network device, and initiate a 10 connection with a network device having the call forwarding destination.

18. A network device according to claim 17 wherein the call forwarding function is adapted to provide call forwarding information to another network device defined as 15 a backup for the network device.

19. A network device according to claim 17 wherein the network device is defined as a backup network device for the other network device.

20. A network device according to claim 17 wherein the 20 look-up is performed locally at the network device.

21. A network device according to claim 17 comprising a call processing module adapted to process the incoming call, the processing module comprising the call forwarding function.

25 22. A network device according to claim 21 comprising:

a user interface adapted to receive a user input enabling call forwarding, wherein responsive to the user input the call processing module is further adapted to deliver call forwarding functionality by, while call 30 forwarding is enabled, upon receipt of the incoming call:

if the incoming call was intended for the network device, looking-up an other call forwarding destination and initiate a connection with a network device having the other call forwarding destination.

- 5 23. A network device according to claim 17 wherein the call forwarding function is adapted to send a message to a network device from which the incoming call originates, the message containing a reference to the network device having the call forwarding destination.
- 10 24. A network device according to claim 17 wherein the network device is one of a terminal set, a packet based telephone, a video phone, a PC (Personal Computer), a PDA (Personal Digital Assistant), a soft phone, a wireless device, and a wireless telephone.
- 15 25. A network device according to claim 17 wherein the network device is a VoIP (Voice over Internet Protocol) telephone.
26. A network device adapted to participate in call forwarding, the network device comprising:
  - 20 a call forwarding function adapted to:
    - for a call initiated with a first other network device, if the first other network device cannot be reached:
      - i) look-up a destination address for a second other network device;
      - 25 ii) initiate an other call to the second other network device; and
      - iii) responsive to a receiving a first message from the second other network device containing a call forwarding destination, respond with a second message to a

network device having the call forwarding destination for setting up another call, the call forwarding destination being obtained by the second other network device on behalf of the first network device.

5 27. A network device according to claim 26 wherein the call forwarding function is further adapted to:

for the call initiated with the first other network device, if the first other network device can be reached:

10 responsive to a receiving a third message from the first other network device containing the call forwarding destination, send a fourth message to the network device having the call forwarding destination for setting up a call.

15 28. A network device adapted to participate in forwarding of a call from the network device to a first other network device, the network device comprising:

a call forwarding function adapted to:

20 responsive to a receiving a first message from a second other network device for replacing the call with another call with the second network device, establishing a media path with the second other network device.

29. A network device according to claim 28 wherein the call forwarding function is further adapted to:

25 if the first other network device cannot be reached:

i) look-up a new destination address;

ii) initiate a call with a network device having the new destination address; and

iii) responsive to a receiving a first message from the network device having the new destination address, 5 the first message containing a call forwarding destination, send a second message to a network device having the call forwarding destination for setting up a call, the call forwarding destination being obtained by the network device having the new destination address on behalf of the first 10 network device.

30. A network device adapted to participate in call forwarding of call from a first other network device to a second other network device, the second other network device initiating an other call to the network device, the network 15 device comprising a call forwarding function adapted to:

establish a media path with the first other network device.

31. A system in a network comprising:

a plurality of network devices each capable of 20 accessing the network, each network device comprising a call forwarding function adapted to:

a) as an original destination network device, upon receipt of a first call:

i) look-up a call forwarding destination; and

25 ii) provide destination information associated with the call forwarding destination of a network device from which the first call originates; and

b) as an originator network device of a second call:

responsive to receiving a message containing destination information of an other network device, establish a media path with the other network device.

32. A system according to claim 31 wherein for each 5 network device the call forwarding function is adapted to:

as the originator network device, the establishing a media path with the other network device comprises sending a message to the other network device containing a reference to the second call.

10 33. A system according to claim 31 wherein for each network device, as the original destination network device the call forwarding function is adapted to:

if the first call is not intended for the network device, looking-up the call forwarding destination on behalf 15 of an other network device for which the first call is intended.

34. A system according to claim 31 wherein for each network device:

c) as a forwarder network device of a third call 20 from a first other network device to a second other network device, the second other network device initiating a fourth call to the network device, the call forwarding function is further adapted to:

establish a media path with the first other 25 network device.

35. A system according to claim 31 further comprising:

a TTI (Thin Trunk Interface) having a call forwarding function adapted to provide local call forwarding

functionality as a forwarder of a call for a network devices external to the network.

36. A system according to claim 31 further comprising:

5 a TTI (Thin Trunk Interface) having a call forwarding function adapted to provide local call forwarding functionality as an originator of a call for a network devices external to the network.

37. A system according to claim 31 wherein for each network device:

10 the second call is to a first other network device and as the originator network device the call forwarding function is adapted to:

15 if the first other network device cannot be reached, look-up an address for a second other network device and send a message to the second other network device for setting up a call with the second other network device.

20 38. A system according to claim 31 wherein each network device is one of a terminal set, a packet based telephone, a video phone, a PC (Personal Computer), a PDA (Personal Digital Assistant), a soft phone, a wireless device, and a wireless telephone.

25 39. A system according to claim 31 wherein each network device is a VoIP (Voice over Internet Protocol) telephone.

40. A system in a network comprising:

a plurality of network devices each capable of accessing the network, each network device comprising a call forwarding function adapted to:

a) as an original destination network device, upon receipt of a first call:

i) look-up a call forwarding destination; and

ii) send a first message to a network device

5 having the call forwarding destination for setting up a call with the network device having the call forwarding destination; and

b) as an originator network device of a second

call:

10 responsive to receiving a second message containing destination information of an other network device, establish a media path with the other network device.

41. A network device according to claim 40 wherein for  
15 each network device:

as the original destination network device, the call forwarding function is adapted to send a third message to a network device from which the first call originates, the third message containing a reference to the network  
20 device having the call forwarding destination.

42. In a network device, a method comprising:

responsive to receiving an incoming call from a first other network device:

if the incoming call was intended for an other  
25 network device, looking-up a call forwarding destination on behalf of the other network device, and respond to the incoming call with the call forwarding destination.

43. An article of manufacture comprising:

a computer usable medium having computer readable program code means embodied therein, the computer readable code means in the article of manufacture comprising:

computer readable code means for:

5 in a network device, responsive receiving an incoming call:

10 if the incoming call was intended for an other network device, looking-up a call forwarding destination on behalf of the other network device, and responding to the incoming call with the call forwarding destination.

44. An article of manufacture according to claim 43 wherein the computer readable code means in the article of manufacture further comprises computer readable means for providing call forwarding information to another network 15 device defined as a backup for the network device.

45. An article of manufacture according to claim 43 wherein the network device is defined as a backup network device for the other network device.

46. An article of manufacture according to claim 43 20 wherein the computer readable code means in the article of manufacture further comprises computer readable means for performing the looking-up locally at the network device.

47. An article of manufacture according to claim 43 wherein the computer readable code means in the article of 25 manufacture further comprises computer readable means for:

responsive to receiving a user input enabling call forwarding, delivering call forwarding functionality by, while call forwarding is enabled, upon receipt of the incoming call:

if the incoming call was intended for the network device, looking-up an other call forwarding destination and responding to the incoming call with the other call forwarding destination.

5 48. An article of manufacture according to claim 43 wherein the computer readable code means in the article of manufacture further comprises:

computer readable means for initiating an other call to an other network device; and

10 computer readable means for:

responsive to receiving a first message in response to initiating the other call, the first message containing a first other call forwarding destination, sending a second message to a network having the first other 15 call forwarding destination to set up a connection.

49. An article of manufacture according to claim 48 wherein the computer readable code means in the article of manufacture further comprises computer readable means for:

if there is no response to the first message, 20 looking-up a second other call forwarding destination and initiating a call to a network device having the second other call forwarding destination.

50. An article of manufacture according to claim 43 wherein the computer readable code means in the article of 25 manufacture further comprises computer readable means for participating in a call forwarding of a first other call from a first other network device to a second other network device, the second other network device initiating a second other call to the network device, by:

establishing a media path with the first other network device.

51. An article of manufacture according to claim 43 wherein the network device is one of a terminal set, a 5 packet based telephone, a video phone, a PC (Personal Computer), a PDA (Personal Digital Assistant), a soft phone, a wireless device, and a wireless telephone.

52. An article of manufacture according to claim 43 wherein the network device is a VoIP (Voice over Internet 10 Protocol) telephone.

53. An article of manufacture comprising:

a computer usable medium having computer readable program code means embodied therein, the computer readable code means in the article of manufacture comprising:

15 computer readable code means for:

in a network device, responsive receiving an incoming call:

if the incoming call was intended for an other network device, looking-up a call forwarding destination on 20 behalf of the other network device, and initiating a connection with a network device having the call forwarding destination.

54. An article of manufacture according to claim 53 wherein the computer readable code means in the article of 25 manufacture further comprises computer readable means for providing call forwarding information to another network device defined as a backup for the network device.

55. An article of manufacture according to claim 53 wherein the network device is defined as a backup network device for the other network device.

56. An article of manufacture according to claim 53 wherein the computer readable code means in the article of manufacture further comprises computer readable means for performing the look-up locally at the network device.

57. An article of manufacture according to claim 53 wherein the computer readable code means in the article of manufacture further comprises computer readable means for:

responsive to a user input enabling call forwarding, delivering call forwarding functionality by, while call forwarding is enabled, upon receipt of the incoming call:

15 if the incoming call was intended for the network device, looking-up an other call forwarding destination and initiate a connection with a network device having the other call forwarding destination.

58. An article of manufacture according to claim 53 wherein the network device is one of a terminal set, a packet based telephone, a video phone, a PC (Personal Computer), a PDA (Personal Digital Assistant), a soft phone, a wireless device, and a wireless telephone.

59. An article of manufacture according to claim 53 wherein the network device is a VoIP (Voice over Internet Protocol) telephone.